**#1:** Solve gain inequalities for $\alpha$ and $\lambda$

**#2:**

```
(≡) ———————[ Depolarizing λ ]——————— (≡)
```

$$\hat{\rho}_F = \frac{(1-\alpha)}{2} \text{Tr}[\hat{\rho}_i] + \lambda \hat{\rho}_i \quad : \quad \hat{\rho}_i = \frac{1}{2}\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$$

**#3:**

```
(≡) ————┌──────────┐————[ Depolarizing λ ]——— (≡)
        │  Û_prep  │
(≡) ————└──────────┘——————————————————————————— (≡)
```

**#4:**

```
(≡) ————┌──────────┐————[ Depolarizing λ ]——— (≡)
        │  Û_prep  │
(≡) ————└──────────┘————[ Depolarizing α ]——— (≡)
```
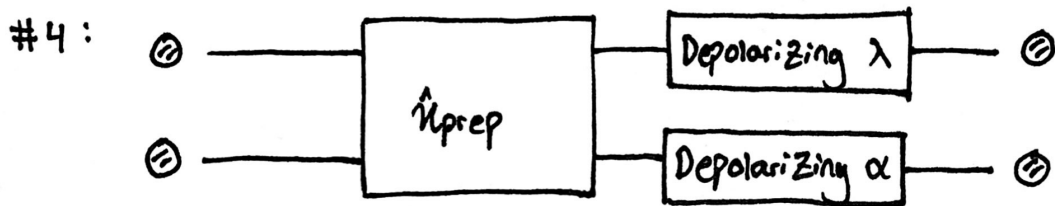
**#5:** Determine gain for #3 and #4

**#6:** Solve gain equations for $\alpha$ and $\lambda$ when $G > 1$

**#7:** Create plots for #1, #5, #6